Waste Disposal Interpretations

Sanitary Facilities

The nature of the soil is important is selecting sites for sanitary facilities, and in identifying limiting soil properties and site features to be considered in planning, design, and installation. Soil limitations ratings of slight, moderate, or severe are given for septic tank absorption fields, sewage lagoons, and trench and area type sanitary landfills. Soil suitability ratings of good, fair, and poor are given for daily cover for landfills. Limitations or suitability terms used in this subsection are as follows:

SLIGHT (or Good) - relatively free of limitations or limitations are easily overcome.

MODERATE (or Fair) - limitations need to be recognized, but usually can be overcome with good management or special design.

SEVERE (or Poor or Very Poor) - limitations are difficult or impractical to overcome.

Sanitary Facility Type

SEPTIC TANK ABSORPTION FIELDS are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into the natural soil. The centerline depth of the tile is assumed to be at a depth of 24 inches. Only the soil between depths of 24 and 60 inches is considered in making the ratings. The soil properties and site features considered are those that affect the absorption of the effluent, those that affect the construction and maintenance of the system, and those that may affect public health.

SEWAGE LAGOONS are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons have a nearly level floor surrounded by cut slopes or embankments of compacted, relatively impervious soil material.

AEROBIC LAGOONS generally are designed so that the depth of sewage is 2 to 5 feet. Relatively impervious soil for the lagoon floor and sides is desirable to minimize seepage and contamination of local ground water.

SANITARY LANDFILL (TRENCH) is a method of disposing of solid waste by placing refuse in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil that is excavated from the trench. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. Properties that influence risk of pollution, ease of excavation, trafficability, and revegetation are major considerations.

SANITARY LANDFILL (AREA) is a method of disposing of solid waste by placing refuse in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil that is imported from a source away from the site. A final cover of soil at least 2 feet thick is placed over the completed landfill. Properties

that influence trafficability, revegetation, and risk of pollution are the main considerations for area type sanitary landfills.

DAILY COVER FOR LANDFILL is the sod material that is applied daily to compacted solid waste in an area type sanitary landfill. The cover material is obtained off-site, transported, and spread on the area. Suitability of a soil for use as cover is based on properties that reflect workability and the ease of digging and of moving and spreading the material over the refuse daily during both wet and dry periods.

Waste Management

The nature of the soil is also important in the application of organic wastes and wastewater to land as fertilizers and irrigation; it is also important when the soil is used as a medium for treatment and disposal of these wastes. Favorable soil properties are required to prevent environmental damage.

The use of organic wastes and wastewater as production resources will result in energy conservation, prevent the waste of these important resources, and prevent problems associated with their disposal. Where disposal is the goal, and a maximum amount is disposed in a minimum area to hold costs to a minimum, risk of environmental damage is the principal constraint. Where the reuse goal is pursued, and a minimum amount is applied to a maximum area to obtain the greatest benefit, environmental damage is unlikely.

This section includes:

- (a) Sanitary Facilities
- (a) Waste Management

Waste Management

Map symbol and soil name	Land application of m		Land application o municipal sewage sl		 Disposal of wastewate: irrigation	r by	Treatment of wastewat		 Treatment of wastewat rapid infiltration pr	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
1B: Marshall	 Not limited 		 Not limited 		 Slightly limited ~slope (slightly limited) 	0.10	 Slightly limited ~slope (slightly limited) 	 0.10 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (moderately limited)	1.00
1C2: Marshall	 Slightly limited ~slope (slightly limited) 	 0.15 	 Slightly limited ~slope (slightly limited) 	 0.15 	 Moderately limited ~slope (moderately limited) 	 0.45 	 Moderately limited ~slope (moderately limited) 		 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (very limited)	1.00
1D2: Marshall	 Limited ~slope (limited) 	 0.76 	Limited ~slope (limited) 	 0.76 	 Limited ~slope (limited) 	 0.99 	 Limited ~slope (limited) 	 0.99 	 Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00
2C: Knox	 Slightly limited ~slope (slightly limited) 	0.15	 Slightly limited ~slope (slightly limited) 	 0.15 	 Moderately limited ~slope (moderately limited) 	 0.45 	 Moderately limited ~slope (moderately limited) 		 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (very limited)	1.00

Waste Management

Map symbol and soil name	 Land application of m and food processing		Land application o municipal sewage sl		 Disposal of wastewate: irrigation	r by	 Treatment of wastewate slow rate proces		Treatment of wastewat rapid infiltration pr	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
2D2: Knox	 Limited ~slope (limited) 	 0.76 	 Limited ~slope (limited) 	 0.76 	 Limited ~slope (limited) 	 0.99 	 Limited ~slope (limited) 	 0.99 	Very limited percs slowly (very limited) slope (very limited) wetness (very limited)	1.00
2E2: Knox	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00
2F2: Knox	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00
6C2: Arispe	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.15 	 Limited ~percs slowly (limited) ~slope (slightly limited)	j	Limited ~percs slowly (limited) ~slope (moderately limited)	 0.60 0.45 	Limited -percs slowly (limited) -slope (moderately limited)	 0.60 0.45 	Very limited percs slowly (very limited) wetness (very limited) slope (very limited)	1.00

Waste Management

Map symbol and soil name	 Land application of m and food processing		Land application of municipal sewage slu		 Disposal of wastewate: irrigation	r by	 Treatment of wastewat slow rate proces	_	 Treatment of wastewat rapid infiltration pr	_
	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
7B: Sharpsburg	 Limited ~percs slowly (limited) 	 0.60 	 Limited ~percs slowly (limited) 	 0.60 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.10 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.10 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (moderately limited)	1.00
7C: Sharpsburg	Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.15 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.15 	 Limited ~percs slowly (limited) ~slope (moderately limited) 	 0.60 0.45 	 Limited ~percs slowly (limited) ~slope (moderately limited) 	 0.60 0.45 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (very limited)	1.00
8B: Macksburg	 Limited ~percs slowly (limited) 	 0.60 	 Limited ~percs slowly (limited) 	 0.60 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.10	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.10	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (moderately limited)	 1.00 1.00 0.31
9C2: Higginsville	 Moderately limited ~wetness (moderately limited) ~slope (slightly limited)	 0.36 0.15 	 Moderately limited ~wetness (moderately limited) ~slope (slightly limited)	 0.36 0.15 	 Moderately limited ~slope (moderately limited) ~wetness (moderately limited)	 0.45 0.36 	 Moderately limited ~slope (moderately limited) ~wetness (moderately limited)	 0.45 0.36 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (very limited)	1.00

Waste Management

Map symbol and soil name	Land application of male and food processing was		Land application o municipal sewage sl		Disposal of wastewate:	r by	Treatment of wastewate slow rate proces	-	Treatment of wastewat rapid infiltration po	
	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
9D2: Higginsville	 Limited ~slope (limited) ~wetness (moderately limited)	 0.76 0.36 	Limited ~slope (limited) ~wetness (moderately limited)	 0.76 0.36 	Limited ~slope (limited) ~wetness (moderately limited)	 0.99 0.36 	Limited -slope (limited) -wetness (moderately limited)	 0.99 0.36 	 Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00
16B: Ladoga	 Limited ~percs slowly (limited)	 0.60 	 Limited ~percs slowly (limited) 	 0.60 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.10 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.10 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (moderately limited)	1.00
16C2: Ladoga	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.15 	 Limited ~percs slowly (limited) ~slope (slightly limited)	 0.60 0.15 	 Limited ~percs slowly (limited) ~slope (moderately limited)	 0.60 0.45 	 Limited ~percs slowly (limited) ~slope (moderately limited)	 0.60 0.45 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (very limited)	1.00
23: Bremer	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	0.60	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	 0.60 	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	0.60	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	0.60	 Very limited ~percs slowly (very limited) ~wetness (very limited)	1.00

Waste Management

Map symbol and soil name	Land application of male and food processing to		Land application o municipal sewage sl		 Disposal of wastewate: irrigation	r by	Treatment of wastewat slow rate proces		Treatment of wastewat rapid infiltration pr	
	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value
26E: Rosendale	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.99	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.99	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.99	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.99	Very limited -percs slowly (very limited) -slope (very limited) -depth to bedrock (very limited)	 1.00 1.00
29F: Brussels	 Very limited ~slope (very limited) ~large stones >35% (very limited) ~percs slowly (limited)	 1.00 1.00 0.60	 Very limited ~slope (very limited) ~large stones >35% (very limited) ~percs slowly (limited)	 1.00 1.00 0.60	 Very limited ~slope (very limited) ~large stones >35% (very limited) ~percs slowly (limited)	 1.00 1.00 0.60	Very limited -slope (very limited) -large stones >35% (very limited) -percs slowly (limited)	 1.00 1.00 0.60	Very limited ~percs slowly (very limited) ~slope (very limited) ~too cobbly (very limited)	1.00
33C: Armstrong	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~slope (slightly limited)	 0.99 0.44 0.15	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~slope (slightly limited)	 0.99 0.44 0.15	 Limited ~percs slowly (limited) ~slope (moderately limited) ~wetness (moderately limited)	 0.99 0.45 0.44	Limited -percs slowly (limited) -slope (moderately limited) -wetness (moderately limited)	 0.99 0.45 0.44	Very limited -percs slowly (very limited) -wetness (very limited) -slope (very limited)	1.00
33D2: Armstrong	Limited -percs slowly (limited) -slope (limited) -wetness (moderately limited)	 0.99 0.76 0.44	 Limited ~percs slowly (limited) ~slope (limited) ~wetness (moderately limited)	 0.99 0.76 0.44	Limited -slope (limited) -percs slowly (limited) -wetness (moderately limited)	 0.99 0.99 0.44	Limited -slope (limited) -percs slowly (limited) -wetness (moderately limited)	 0.99 0.99 0.44	Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00

Waste Management

Map symbol and soil name	 Land application of ma and food processing v		Land application o municipal sewage sl					 Treatment of wastewat rapid infiltration pr		
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
36C: Olmitz	 Not limited 		 Not limited 		 Moderately limited ~slope (moderately limited) 	0.30	 Moderately limited ~slope (moderately limited) 	 0.30 	 Very limited ~percs slowly (very limited) ~wetness (very limited) ~slope (limited)	1.00
37D: Gara	 Limited ~slope (limited) 	 0.76 	 Limited ~slope (limited) 	 0.76 	 Limited ~slope (limited) 	 0.99 	 Limited ~slope (limited) 	 0.99 	 Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00
37E: Gara	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.60 	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.60 	 Very limited ~slope (very limited) ~percs slowly (limited) 	 1.00 0.60 	 Very limited ~slope (very limited) ~percs slowly (limited)	 1.00 0.60 	 Very limited ~percs slowly (very limited) ~slope (very limited) ~wetness (very limited)	1.00
42C2: Lamoni	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~slope (slightly limited)	0.99	Limited -percs slowly (limited) -wetness (moderately limited) -slope (slightly limited)	 0.44	 Limited ~percs slowly (limited) ~slope (moderately limited) ~wetness (moderately limited)	 0.99 0.45 0.44	(limited) ~slope (moderately limited)	0.99	Very limited	1.00

Waste Management

		Land application o municipal sewage sl		Disposal of wastewate: irrigation	r by				
Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
	I				I				1
Limited ~percs slowly	 0.99		 0.99		 0.99	1 -	 0.99		1.00
~slope (limited)	0.76	1 '	j	~percs slowly (limited)	0.99	~percs slowly (limited)	 0.99 	~slope (very limited)	1.00
<pre>~wetness (moderately limited)</pre>	0.44	<pre> ~wetness (moderately limited)</pre>	0.44			<pre> ~wetness (moderately limited)</pre>	0.44	~wetness (very limited)	1.00
Limited	 0.76	 Limited ~slope	 0.76	 Limited ~slope	 n 99	 Limited ~slope	 n 99	 Very limited ~percs slowly	1.00
(limited) ~percs slowly	İ	(limited) ~percs slowly	j	(limited) ~percs slowly	İ	(limited) ~percs slowly	İ	(very limited)	1.00
(IIIIIIII	 	(IIIIII) 	 		 		 	(very limited) -wetness (very limited)	1.00
Not limited	 	 Not limited 	 	 Slightly limited ~slope (slightly limited)	 0.20	 Slightly limited ~slope (slightly limited)	 0.20	 Very limited ~percs slowly (very limited)	1.00
	 		 		 		 	~wetness (very limited) ~slope (limited)	1.00 0.66
Limited ~flooding	0.90	, ,	0.90	, ,	0.90	1	0.90	1 1	1.00
<pre>(limited) ~wetness (moderately limited)</pre>	1	! '	 0.44 	1 '		1 .	 0.44 		1.00
	and food processing of Rating class and limiting features Limited ~percs slowly (limited) ~slope (limited) ~wetness (moderately limited) Limited ~slope (limited) ~percs slowly (limited) Not limited Limited ~flooding (limited) ~wetness	Limited ~percs slowly (0.99 (limited) ~slope (0.76 (limited)) ~wetness (0.44 (moderately limited)) Limited ~slope (0.76 (limited)) Percs slowly (0.60 (limited)) Not limited Limited ~flooding (0.90 (limited)) ~wetness (0.44)	and food processing waste Rating class and limiting features Limited ~percs slowly (1imited) ~slope (1imited) ~wetness (moderately limited) Limited ~slope (1imited) ~slope (1imited) Limited ~slope (1imited) Limited ~slope (1imited) Not limited Limited ~slope (1imited) The percs slowly (1imited) Not limited Limited ~slope (1imited) The percs slowly (1imited) Not limited Limited ~slope (1imited) The percs slowly (1imited) Not limited Limited Limited —percs slowly (1imited) Not limited Limited The percs slowly (1imited) Not limited Limited Not limited Not limited Limited Aflooding (1imited) Not limited Limited Aflooding (1imited) Aflooding (1imited) Not limited Aflooding (1imited) Not limited	and food processing waste Rating class and limiting features Limited ~percs slowly (1imited) ~slope (1imited) ~wetness (moderately limited) Limited ~slope (1imited) ~slope (1imited) ~slope (1imited) ~wetness (moderately limited) Limited ~slope (1imited) ~percs slowly (1imited) ~percs slowly (1imited) Limited ~slope (1imited) ~percs slowly (1imited) Not limited Not limited Limited ~slope (1imited) ~percs slowly (1imited) Not limited Not limited Limited ~slope (1imited) ~percs slowly (1imited) Limited ~slope (1imited) ~percs slowly (1imited) Not limited Not limited Not limited Limited ~flooding (1imited) ~wetness 0.44 ~wetness 0.44 ~wetness 0.44 ~wetness 0.44 ~wetness	And food processing waste Rating class and limiting features Nating class and limiting features Nating class and limiting features Nating class and limiting features Nating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features

Waste Management

Map symbol and soil name	Land application of m and food processing		Land application o municipal sewage sl		Disposal of wastewate: irrigation	r by	Treatment of wastewate slow rate process		Treatment of wastewat rapid infiltration pr	er by
	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
56: Zook	1		 Limited		 Limited		 Limited		 Very limited	
	~percs slowly (limited)	0.99 	~percs slowly (limited)	İ	<pre> ~percs slowly (limited)</pre>	0.99 	~percs slowly (limited)	0.99 	<pre> ~percs slowly (very limited)</pre>	1.00
	~flooding (limited)	0.90	~flooding (limited)	0.90 	~flooding (limited)	0.90 	~flooding (limited)	0.90	<pre> ~wetness (very limited)</pre>	1.00
	~wetness (moderately limited)	0.60	~wetness (moderately limited)	0.60	~wetness (moderately limited)	0.60	~wetness (moderately limited)	0.60	~flooding (moderately limited)	0.60
58:		 		 		 		 		
Wabash	Very limited ~wetness (very limited)	 1.00 	Very limited ~wetness (very limited)	 1.00	Very limited ~percs slowly (very limited)	 1.00	Very limited ~percs slowly (very limited)	1.00	Very limited ~percs slowly (very limited)	1.00
	~percs slowly (very limited)	1.00	~percs slowly (very limited)	1.00	· · ·	1.00	~wetness (very limited)	1.00	~wetness (very limited)	1.00
	~flooding (limited)	0.90	~flooding (limited)	0.90	~flooding (limited)	0.90	~flooding (limited)	0.90	~flooding (moderately limited)	0.60
61:		ļ		 		ļ		 		
Nodaway	Limited ~flooding (limited) 	 0.90 	Limited ~flooding (limited) 	 0.90 	Limited ~flooding (limited) 	 0.90 	Limited ~flooding (limited) 	 0.90 	Very limited ~percs slowly (very limited) ~wetness	1.00
		 		 	 	 		 	(limited) ~flooding (moderately limited) 	0.60
71: Albaton	Limited	į į	 Limited	 	 Limited	į į	 Limited	j 	 Very limited	İ
	~percs slowly (limited)	0.99	~percs slowly (limited)	0.99 	~percs slowly (limited)	0.99	~percs slowly (limited)	0.99	~percs slowly (very limited)	1.00
	<pre>/~wetness (moderately limited) ~flooding (slightly limited)</pre>	0.44	<pre> </pre>		<pre> ~~wetness (moderately limited) ~flooding (slightly limited)</pre>	0.44	~wetness (moderately limited)	0.44		1.00

Waste Management

Map symbol and soil name	 Land application of ma and food processing v	anure waste	Land application of municipal sewage slu		 Disposal of wastewate: irrigation	r by	 Treatment of wastewat slow rate proces			atment of wastewater by id infiltration process	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	
72: Haynie	 Slightly limited ~flooding (slightly limited) 	 0.30 	 Slightly limited ~flooding (slightly limited) 	0.30	 Slightly limited ~flooding (slightly limited) 	0.30	 Slightly limited ~flooding (slightly limited) 	0.30	Very limited -percs slowly (very limited) -wetness (very limited)	1.00	
76: Leta	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	 0.44 	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	 0.44 	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	 0.44 	 Limited ~percs slowly (limited) ~wetness (moderately limited) ~flooding (slightly limited)	 0.44	 Very limited ~percs slowly (very limited) ~wetness (very limited)	1.00	
80: Sarpy	 Very limited ~poor filter (very limited) ~droughty (limited) ~flooding (slightly limited)	 0.69 	 Very limited ~poor filter (very limited) ~droughty (limited) ~flooding (slightly limited)	 0.69 	<pre>(very limited) ~droughty (limited)</pre>	i	 Very limited ~poor filter (very limited) ~flooding (slightly limited)	1.00	 Very limited ~wetness (very limited) 	1.00	
99: Pits	 Not rated 	 	 Not rated 	 	 Not rated 	 	 Not rated 	 	 Not rated 		
AED:	 Not rated 		 Not rated 	 	 Not rated 		 Not rated 		 Not rated 		

Waste Management

Map symbol and soil name	 Land application of manure and food processing waste		Land application c municipal sewage sl		 Disposal of wastewate irrigation	er by	 Treatment of wastewat slow rate proces	_	Treatment of wastewath	-
	Rating class and limiting features	Value	Rating class and	Value	Rating class and limiting features	Value	Rating class and	Value	Rating class and limiting features	Value
W: Water	 Not rated 		 Not rated 		 Not rated 		 Not rated 		 Not rated 	
	 	 -		 -	 	 _		 -		_